

StorCase® Technology
Data Silo®
DS100

External SCSI
Expansion Chassis

User's Guide

StorCase® Technology
Data Silo®
DS100
External SCSI
Expansion Chassis

User's Guide

Part No. D89-0000-0052 F02 January 2003



StorCase Technology, Inc.
17600 Newhope Street
Fountain Valley, CA 92708-9885
Phone (714) 438-1850 Fax (714) 438-1847

LIMITED WARRANTY

STORCASE TECHNOLOGY, Incorporated ("StorCase") warrants that its products will be free from defects in material and workmanship, subject to the conditions and limitations set forth below. StorCase will, at its option, either repair or replace any part of its product that proves defective by reason of improper workmanship or materials. Repair parts or replacement products will be provided by StorCase on an exchange basis, and will be either new or reconditioned to be functionally equivalent to new.

This warranty does not cover any product damage that results from accident, abuse, misuse, natural or personal disaster, external power surge or failure, or any unauthorized disassembly, repair or modification. StorCase will not be responsible for any software, firmware or other customer data stored within, or interfacing with a StorCase product.

Duration of Warranty

Seven-Year Warranty: The following StorCase products are covered by this warranty for a period of seven (7) years from the original date of purchase from StorCase or its authorized reseller: all Data Express® removable device enclosures and all StorCase interface cables and accessories specifically intended for use with these products. Data Silo®, Data Stacker® and InfoStation® products are covered by this warranty for a period of seven (7) years, excepting the RAID controller, power supply, fan and blower components, which are covered by the three-year warranty described below.

Three-Year Warranty: The following StorCase products are covered by this warranty for a period of three (3) years from the original date of purchase from StorCase or its authorized reseller: all Rhino®JR external expansion chassis, all Rhino®JR removable drive enclosures, and all RAID controller modules. In addition, the following components of the Data Express, Data Silo, Data Stacker, InfoStation products are subject to warranty for a period of three (3) years: all power supplies, fans and blowers.

Warranty Claim Requirements

To obtain warranty service, the defective product must be returned to your local authorized StorCase dealer or distributor, or, with prior StorCase approval, to the StorCase factory service center.

For defective products returned directly to StorCase, a Return Material Authorization ("RMA") number must be obtained by calling StorCase Customer Service at (714) 445-3455. The RMA number must be prominently displayed on the outside of the return package. Shipments must be freight-prepaid and insured, and must include the product serial number, a detailed description of the problem experienced, and proof of the original retail purchase date. Products must be properly packaged to prevent damage in transit. Damage resulting from improper packaging will not be covered by this warranty. The StorCase factory service center is located at 17650 Newhope Street, Receiving Dock, Gate #4, Fountain Valley, CA 92780, U.S.A.

Free Technical Support

StorCase provides free technical support. If you experience any difficulty during the installation or subsequent use of a StorCase product, please contact StorCase's Technical Support Department prior to servicing your system. This warranty covers only repair or replacement of defective StorCase products, as described above. StorCase is not liable for, and does not cover under warranty, any costs associated with servicing and/or installation of StorCase products.

StorCase Technical Support can be reached in the U.S. at (714) 438-1858 or toll-free at (888) 435-5460 (U.S. and Canada only). StorCase European Technical Support can be reached in the U.K. at +44 (0) 1932 738900.

Disclaimers

The foregoing is the complete warranty for the products identified above and supersedes all other warranties and representations, whether oral or written. StorCase expressly disclaims all warranties for the identified products, which are not stated herein, including, to the extent permitted by applicable law, any implied warranty of merchantability or fitness for a particular purpose. In no event will StorCase be liable to the purchaser, or to any user of a StorCase product, for any damages, expenses, lost revenues, lost savings, lost profits, or any other incidental or consequential damages arising from the purchase, use or inability to use a StorCase product, even if StorCase has been advised of the possibility of such damages.



Copyright © 2003 StorCase Technology. All rights reserved. All registered trademarks are the property of StorCase Technology. All other logos and trademarks are properties of their respective companies.



Declaration of Conformity

Company Name: StorCase Technology, Inc.

Corporate Office Address: 17600 Newhope Street
Fountain Valley, CA 92708

Manufacturing Address: 17600 Newhope Street
Fountain Valley, CA 92708

Product Name: Data Silo DS100

Model Number: DS100-XXXXX/XX

Conforms to the following standards:

EMC Directives: EN 50081-1: 1992 Generic Emission
(89/336/EEC) - EN 55022/CISPR22 Class B
EN 50082-1: 1992 Generic Immunity
- IEC 1000-4-2 ESD
- IEC 1000-4-3 Radiated Immunity
- IEC 1000-4-4 Electrical Fast Transient

Low Voltage Directive: EN 60950
(73/23/EEC)

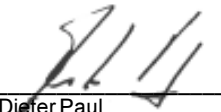
Safety Standards: CAN/CSA-C22.2 No. 950-93
CSA (NRTL/C) UL 1950

TUV EN 60950: 1988 EN 60950/A2: 1991
EN 60950/A1: 1990

EMI Standards: FCC Part 15, Class B

EMC Standards: AS/NZS 3548 Information Technology Equipment

Year of Manufacture: 1998

Signature: 
Full name: Dieter Paul
Position: President

Federal Communications Commission (FCC) Statement

RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate that equipment.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Important Safety Instructions

1. Read all these instructions.
2. Save these instructions for later use.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. This product should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
6. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risk. Refer all servicing to service personnel.

Wichtige Sicherheitshinweise

1. Diese Hinweise sollten vollständig durchgelesen werden.
2. Diese Hinweise für einen späteren Gebrauch aufbewahren.
3. Allen auf dem Gerät angebrachten Warnungen und Hinweisen folgen.
4. Das Gerät nicht in der Nähe von Wasser verwenden.
5. Das Gerät nur mit dem Aufkleber bezeichneten Netzspannung betreiben. Bei Fragen über die Art der Netzspannung sollte der Händler oder das Energieversorgungsunternehmen zu rate gezogen werden.
6. Nicht versuchen das Produkt selbst zu reparieren. In allen Produkten existieren gefährliche elektrische Spannungen. Nicht das Gehäuse öffnen.
7. Wartungsarbeiten nur von qualifizierten Kundendienstpersonal ausführen lassen.

Table of Contents

INTRODUCTION	1
Packaging Information	1
Serial Number	1
General Description	2
Front Panel	4
Rear Panel	5
INSTALLATION	6
Installing the Drive(s) into the DS100	6
Removing the DS100 Cover	6
Drive Preparation	7
Drive Installation	10
Connecting the DS100 to the Computer System	15
Selecting the SCSI ID Number	17
APPENDICES	18
Appendix A - Specifications/Dimensions	19
Appendix B - Drive Interface Adapters	21
Appendix C - Fuse Removal	22
Reader's Comments	23

List of Figures

Figure 1: Data Silo DS100 Family	2
Figure 2: Data Silo DS100 Drive Installation Overview	3
Figure 3: DS100 Front Panel	4
Figure 4: DS100 Rear Panel	5
Figure 5: Cover Screw Location	6
Figure 6: Removing the Cover	7
Figure 7: 8-Bit SCSI ID Cable Connection	8
Figure 8: 16-Bit SCSI ID Cable Connection	9
Figure 9: Removing the Filler Panel	10
Figure 10: Removing the Drive Mounting Bracket	11
Figure 11: Attaching the 3.5" Adapter Brackets to the Drive	11
Figure 12: Installing the Drive into the Drive Mounting Bracket	12
Figure 13: Installing the DS100 2-Bay Drive Mounting Bracket	13
Figure 14: Installing the Drive into the DS100 4-Bay Drive Mounting Bracket	14

List of Figures (cont'd)

Figure 15: Typical Daisy-Chain Connections 16

Figure 16: Dual Host Daisy-Chain Connection 16

Figure 17: SCSI ID Selection Switches 17

Figure A-1: DS100 Physical Dimensions 20

Figure B-1: Drive Interface Adapters 21

Figure C-1: Removing the Fuse 22

NOTICE: This User's Guide is subject to periodic updates without notice. While reasonable efforts have been made to ensure the accuracy of this document, StorCase Technology, Inc. assumes no liability resulting from errors or omissions in this publication, or from the use of the information contained herein.

Please check the StorCase web site at <http://www.storcase.com> or contact your StorCase representative for the latest revision of this document.

INTRODUCTION

Packaging Information

The StorCase Technology Data Silo® external expansion chassis is shipped in a container designed to provide protection and prevent damage during shipment. The Data Silo was carefully inspected before and during the packing procedure at the factory. Evidence of any damage to the Data Silo should be reported to the shipper immediately.

If the wrong Data Silo model has been received, please call your reseller or StorCase at (800) 435-0642 to arrange for a Return Material Authorization (RMA). StorCase cannot accept returns which do not display an RMA number on the outside of the package. Return the unit with all the original packing materials.

Before removing any component from its packaging, discharge any static electricity by touching a properly grounded metal object.

Serial Number

The DS100 is labeled with a serial number. This number must be reported to the StorCase Customer Service Representative in order to receive a Return Material Authorization (RMA) for warranty claims. Locate the serial number label and record the number in the space provided below.

Serial Number:

General Description

The StorCase Technology **Data Silo® DS100** series of stand-alone expansion chassis provide rugged and reliable housing for SCSI storage devices. This line of storage enclosures is available in various versions, supporting 3.5" and 5.25" form factor, full-height, half-height, and low profile (1" high) devices. The DS100 can additionally house the Data Express® removable drive enclosures.

The DS100 is available in single, dual, and quad bay configurations (Figure 1). Each chassis is constructed of rugged steel and is equipped with auto-ranging power supply(ies), power-on and drive status LEDs, highly-rated cooling fan(s), and all necessary internal wiring and mounting hardware. Removable front filler panel(s) facilitate the mounting of either fixed or removable media devices.

The DS100 is available with single host 50-pin Microminiature (HD50), 68-pin High Density, or 68-pin VHDCI (for SCSI Ultra2 and Ultra160) connectors. The 4-bay version of the DS100 is available with either single or dual host SCSI connectors. All DS100 models come with externally mounted SCSI ID selection switch(es) for easy unit ID selection.

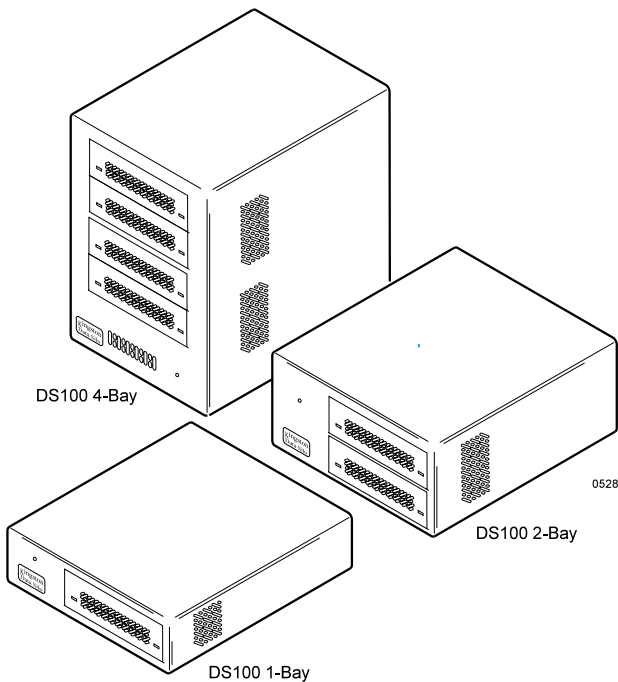


Figure 1: Data Silo DS100 Family

This User's Guide describes the steps required for installing drive(s) into the Data Silo DS100 external expansion chassis. The illustrations and instructions contained in this manual are generally representative of all Data Silo DS100 models. Your Data Silo may differ slightly from the illustrations shown. Although each Data Silo model contains different drive bay or I/O configurations, the installation process is basically the same for all models.

This guide is intended to supplement documentation provided with the host computer system, the operating system, and the drive(s) to be installed within the Data Silo. Figure 2 below illustrates a typical drive installation into a Data Silo DS100 external expansion chassis.

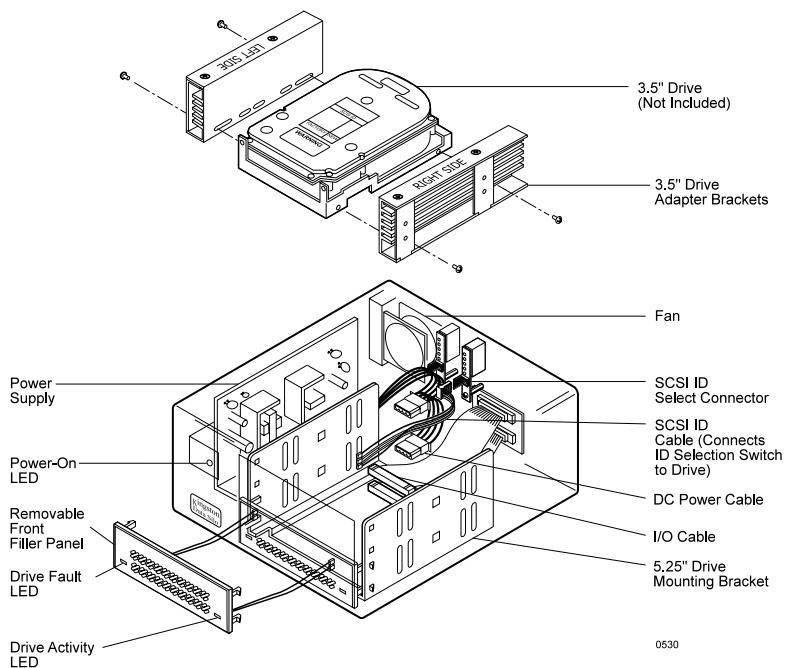
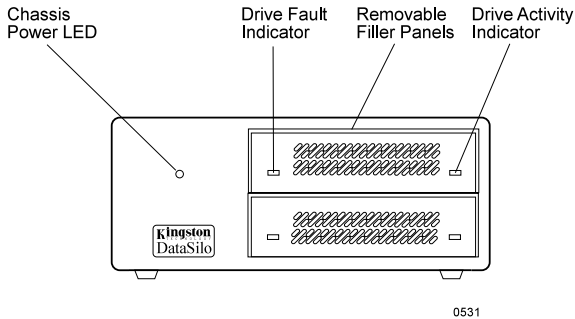


Figure 2: Data Silo DS100 Drive Installation Overview
(DS100 2-Bay Shown)

Front Panel

(See Figure 3)

- **Chassis Power LED** - Indicates that power is being supplied to the DS100 chassis.
- **Removable Filler Panels** - Accommodate removable media devices (CD-ROM, DAT drives, etc.)
- **Drive Activity Indicator** - Provides a visual indication of drive activity. This LED is housed in the removable filler panel(s) and provides connectors which can easily be attached to the installed drive(s) within the DS100 chassis.
- **Drive Fault Indicator** - Provides a visual indication of the status of each installed drive. This LED is housed in the removable filler panel(s) and provides connectors which can easily be attached to the installed drive(s) within the DS100 chassis. Not all hard drives offer a drive fault feature (refer to the drive manufacturer's documentation for drive fault signal connection).

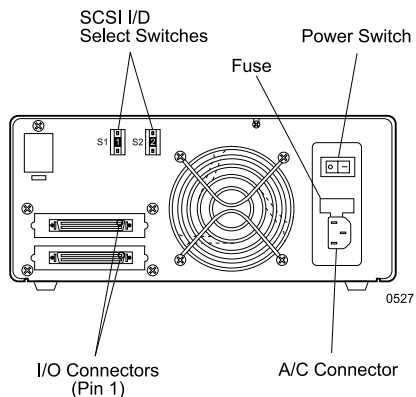


*Figure 3: DS100 Front Panel
(DS100 2-Bay Shown)*

Rear Panel

(See Figure 4)

- **SCSI ID Select Switch(es)** - Provide SCSI ID selection. The DS100 uses two (2) rotating switches (refer to "Selecting the SCSI ID Number" for additional information).
- **Fuse** - A fuse located on the rear panel protects the DS100 circuitry (refer to Appendix C for fuse removal and installation information).
- **Power Switch** - Provides power to the DS100 chassis.
- **A/C Connector** - Accepts U.S. and other available international standard power cables. Contact StorCase for ordering information.
- **I/O Connectors** - The DS100 is available with 50-pin MM (HD50), 68-pin HD, or 68-pin VHDCI (for SCSI Ultra2 and Ultra160) connections. The DS100 4-bay is optionally available with dual port connectors.



*Figure 4: DS100 Rear Panel
(DS100 2-Bay Shown)*

INSTALLATION

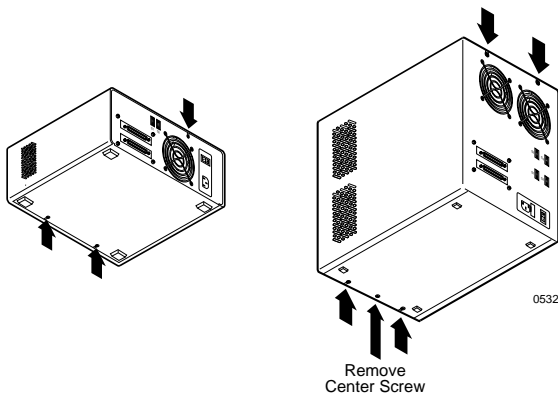
Installing the Drive(s) into the DS100

While performing the steps in this section, work on a soft surface to prevent excessive shock to the drive(s) being installed. Also refer to the manufacturer's documentation provided with the drive(s). A #2 Phillips and a flat blade screwdriver will be required.

Removing the DS100 Cover

WARNING: Remove all power from the Data Silo before removing the cover. The Data Silo contains NO USER SERVICEABLE PARTS inside the unit.

1. Unplug the DS100 and verify that ALL cables have been disconnected.
2. Turn the DS100 over and place it on a soft clean surface, so that the bottom is facing upward.
3. Loosen the two (2) screws located on the bottom of the unit. The DS100 4-bay cover uses a third, center screw. Remove it completely from the bottom of the chassis.
4. Place the DS100 in an upright position so that it rests on its four rubber feet.
5. Remove the screw(s) located on the rear panel of the chassis as shown in Figure 5.
6. Carefully slide the top cover forward and off the chassis (Figure 6).



*Figure 5: Cover Screw Location
(2-Bay and 4-Bay Models Shown)*

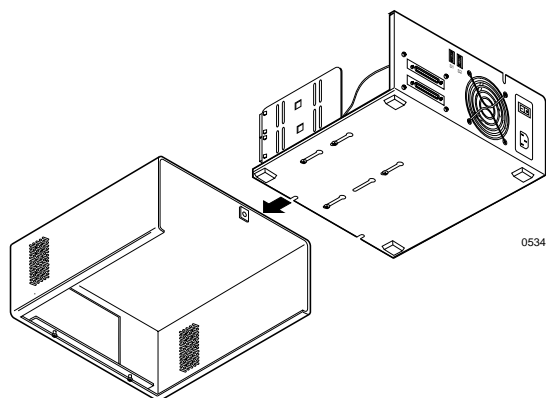


Figure 6: Removing the Cover
(2-Bay Shown)

Drive Preparation

1. Remove the drive from its protective packaging.
2. **Plastic Drive Bezel** - If installing a hard drive which is equipped with a plastic front bezel, remove the drive bezel.
3. **SCSI Drive Termination** - Disable SCSI termination from the drive. Refer to the documentation provided by the drive manufacturer for the location of these terminators or jumpers. Termination is provided by an external terminator on the DS100 rear panel. External active termination is recommended for best SCSI performance (terminator not included with the DS100).
4. **SCSI Drive ID Select Jumpers** - Locate the SCSI ID select jumper pins on the drive, and remove any jumpers on these pins. The DS100 SCSI ID cable will be attached to these pins on each drive (Figures 7 & 8).
5. **SCSI ID Cable** - Each DS100 is supplied with one SCSI ID select cable per drive bay. The ID cable permits external unit ID selection via a small switch located on the rear panel of the DS100 (Figure 4). One end of this cable attaches to the drive SCSI ID pins and the other end attaches to the DS100 unit ID select switch. The cable is designed to connect to drives with 2mm ID select pins.

NOTE: Depending upon the model, the DS100 uses one of two different types of SCSI ID select switch connectors. One connector contains 0.1" pin spacing with a matching SCSI ID cable. The other type of SCSI ID connector contains 2mm pin spacing with a matching SCSI ID cable (Figures 7 & 8).

IF INSTALLING A 16-BIT SCSI DEVICE:

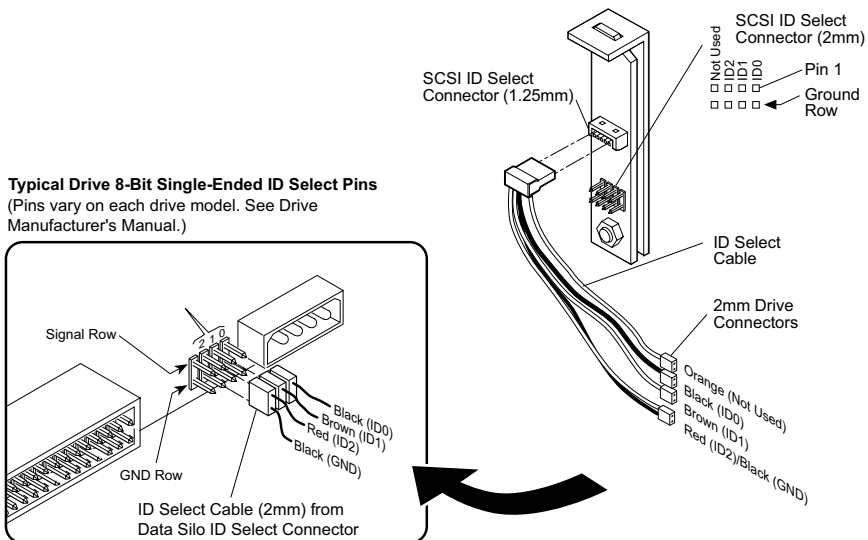
The unit ID cable contains **black**, **brown**, **red/black**, and **orange** wires. Attach three (3) connectors from the SCSI ID select cable to the appropriate 2mm drive pins (Figure 7). The fourth (orange) wire is not used for the 8-bit installation.

The single **black** wire plugs into the drive pin used to select ID1, the **brown** wire plugs into the drive pin for ID2, the **red/black** wire plugs into the drive pin for ID4. The **orange** wire is not used for this interface.

In most cases, the drive manufacturer labels each pair of SCSI ID select pins in significant bit order (0, 1, and 2). One row of drive pins is the signal row, and one row is designated for ground (refer to the drive manufacturer's documentation for specific pin configurations).

The DS100 ID select cable provides 2mm, 2-conductor drive connectors. A single wire attaches to one side of each connector (with the exception of the red/black connector). The cable side of each connector must align with the signal pin on the drive. On the red/black connector, the red wire aligns with the signal pin on the drive and the black wire aligns with the ground pin.

NOTE: Some versions of the Data Silo have a reversible ID select cable. This cable may be attached to either 2mm or 1.25mm drive pins.



0538A

Figure 7: 8-Bit SCSI ID Cable Connection

IF INSTALLING A 16-BIT SCSI DEVICE:

The unit ID cable contains **black**, **brown**, **red/black**, and **orange** wires. Attach four (4) connectors from the SCSI ID select cable to the appropriate 2mm drive pins (Figure 8).

The single **black** wire plugs into the drive pin used to select ID1, the **brown** wire plugs into the drive pin for ID2, the **red/black** wire plugs into the drive pin for ID4 and the **orange** wire plugs into the drive pin to select ID8.

In most cases, the drive manufacturer labels each pair of SCSI ID select pins in significant bit order (0, 1, and 2). One row of drive pins is the signal row, and one row is designated for ground (refer to the drive manufacturer's documentation for specific pin configurations).

The Data Silo ID select cable provides 2mm, 2-conductor drive connectors. A single wire attaches to one side of each connector (with the exception of the red/black connector). The cable side of each connector must align with the signal pin on the drive. On the red/black connector, the red wire aligns with the signal pin on the drive and the black wire aligns with the ground pin.

NOTE: Some versions of the Data Silo have a reversible ID select cable. This cable may be attached to either 2mm or 1.25mm drive pins.

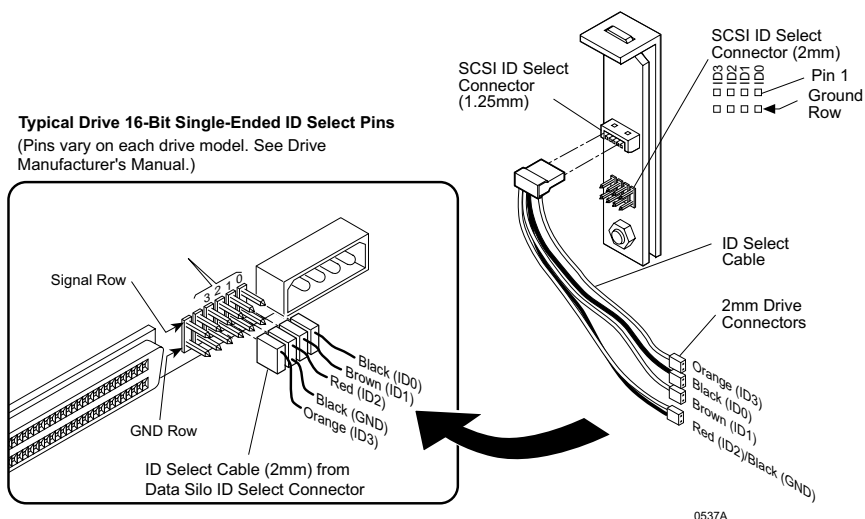
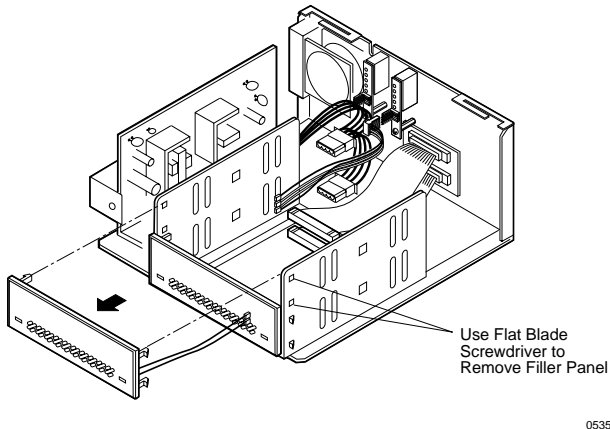


Figure 8: 16-Bit SCSI ID Cable Connection

6. If installing removable media devices, remove the appropriate filler panels from the DS100. These panels can easily be removed by applying a small amount of pressure with the tip of a screwdriver to the filler panel clips, which are visible in the cutouts on the drive mounting bracket (Figure 9). If installing fixed media device(s), leave the filler panel(s) in place.



0535

Figure 9: Removing the Filler Panel

Drive Installation

The process of installing a drive into the DS100 chassis varies slightly, depending upon the model. DS100 1-bay and 2-bay models require the removal of the drive mounting bracket to access drive mounting screws. The DS100 4-bay does not require the removal of the drive mounting bracket.

IF INSTALLING A DRIVE INTO THE DS100 1-BAY OR DS100 2-BAY:

1. Turn the DS100 over and place it on a soft clean surface, so that the bottom is facing upward.
2. Loosen but do not remove the four (4) screws that secure the drive mounting bracket to the DS100 chassis (Figure 10).
3. Place the DS100 in an upright position so that it rests on its four rubber feet.
4. Remove the drive mounting bracket from the chassis by sliding it toward the chassis back panel, then lifting upward.

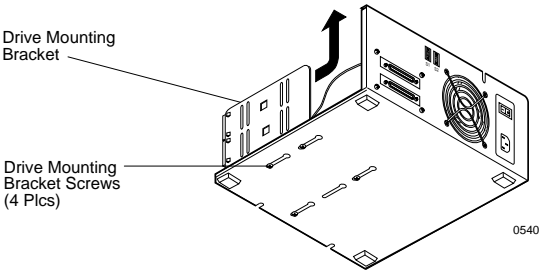


Figure 10: Removing the Drive Mounting Bracket (DS100 2-Bay Shown)

- 5. If installing any 3.5 inch devices into the DS100, attach the 3.5" adapter brackets (included) to the drives before installing them into the drive mounting bracket (Figure 11). The adapter brackets can be attached to the drive with four (4) #6-32 Phillips screws.
- 6. Attach the drive activity and drive fault LED cables to the appropriate drive pins (refer to the device manufacturer's documentation for the location of these pins).

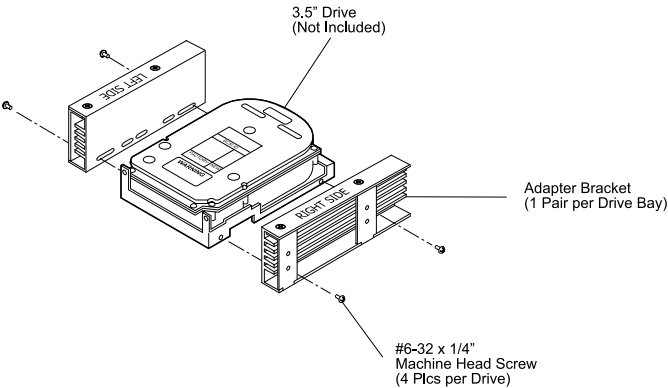
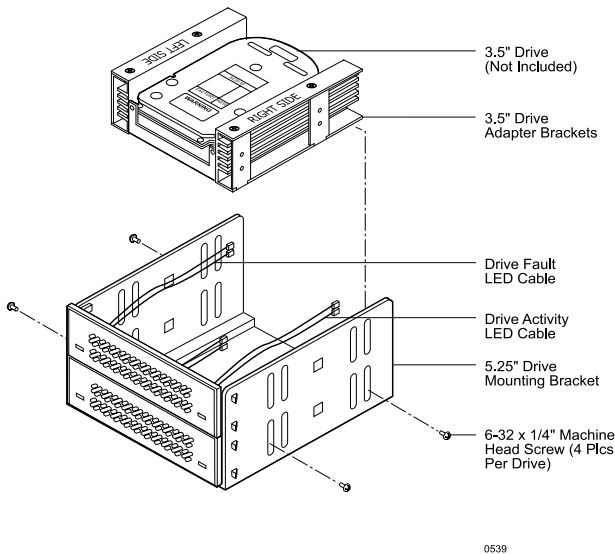


Figure 11: Attaching the 3.5" Adapter Brackets to the Drive

7. Install the drive(s) into the drive mounting bracket using four (4) #6-32 x 1/4" screws (Figure 12). Do not fully tighten the screws on removable media devices.



*Figure 12: Installing the Drive into the Drive Mounting Bracket
(DS100 2-Bay Shown)*

- NOTE:** Do not fully tighten the screws that fasten removable media devices into the drive mounting bracket at this point. The screws will be tightened after the drive bezel clearance has been checked with the cover.
8. After the drive(s) have been fastened into the mounting bracket, carefully insert the bracket back into the DS100 chassis (Figure 13). Be careful that no cables are pinched. Position the screws on the bottom of the mounting bracket through the slots on the bottom of the DS100 chassis so that the bracket can slide freely. Do not tighten the drive mounting bracket screws at this point.
 9. Slide the drive mounting bracket as far as it will go toward the front of the DS100 chassis to allow access for attaching cables at the rear of the DS100.
 10. Connect the I/O cable(s) to the drive(s). Verify that the Pin 1 indicator on the cable is properly aligned (refer to the drive manufacturer's documentation for more information).

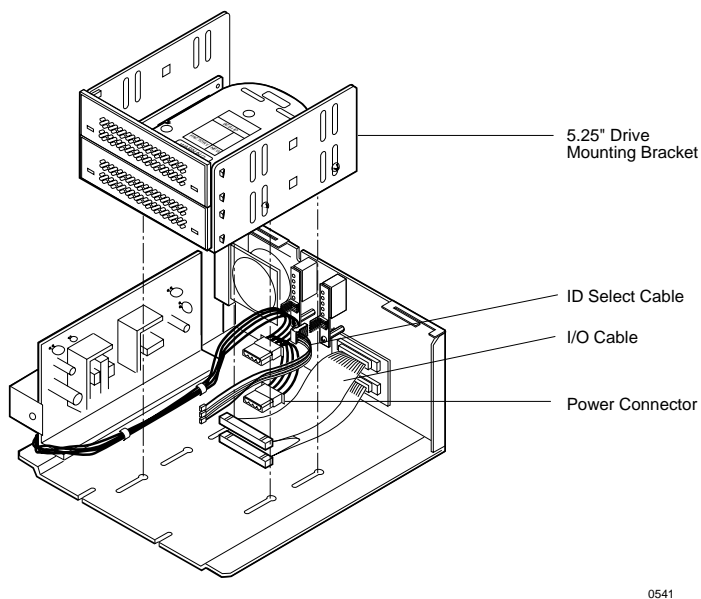


Figure 13: Installing the DS100 2-Bay Drive Mounting Bracket

11. Connect the 4-pin DC power cable(s) from the DS100 to the drive(s).
12. Connect the ID select cable to the ID select interface connector on the rear panel of the DS100 (Figures 7 & 8).

NOTE: Use the provided tie wraps included in the installation kit to prevent the power and ID select cables from possible contact.

13. If necessary, reinstall the DS100 cover to check for proper drive bezel/cover alignment and make any necessary adjustments.
14. Tighten the screws that fasten any removable media device(s) into the mounting bracket.
15. Tighten the screws that fasten the drive mounting bracket to the chassis.
16. Reinstall the DS100 cover and fasten all screws.
17. Connect the power cable to the DS100 and turn on the power switch. Should there be any unusual sound, turn the DS100 off immediately, disconnect the power cable, and remove the cover to locate the source of the problem. Verify that the power and ID select cables are securely fastened with the provided tie wraps and are not contacting the fan. Replace the cover.

IF INSTALLING A DRIVE INTO THE DS100 4-BAY:

1. If installing 3.5" devices into the DS100, attach the 3.5 inch adapter brackets (included) to the drives before installing them into the drive bracket (Figure 11). The adapter brackets can be attached to the drive with four (4) #6-32 Phillips screws.
2. Attach the drive activity and drive fault LED cables to the appropriate drive pins (refer to the device manufacturer's documentation for the location of these pins).
3. Install the drive(s) into the drive mounting bracket using four (4) #6-32 Phillips screws (Figure 14). Do not fully tighten the screws on removable media devices.

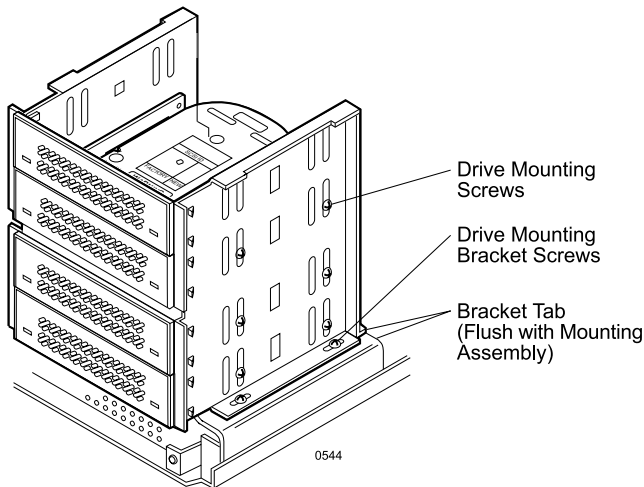


Figure 14: Installing the Drive into the DS100 4-Bay Drive Mounting Bracket

NOTE: Do not fully tighten the screws that fasten removable media devices into the drive mounting bracket at this point. The screws will be tightened after the drive bezel clearance has been checked with the cover.

4. Adjust the drive bracket and drive clearances. In most cases, if the bracket tab (Figure 14) is flush with the DS100 mounting base, no bracket adjustment will be necessary for the drive bezel or filler panel to align with the DS100 cover.
5. If necessary, reinstall the DS100 cover to check for proper drive bezel/cover alignment and make any necessary adjustments to the drive(s)/mounting brackets.
6. Tighten the screws that fasten any removable media device(s) into the mounting bracket.

7. If required, tighten the screws that fasten the drive mounting bracket to the chassis.
 8. Connect the I/O cable(s) to the drive(s). Make sure the Pin 1 indicator on the cable is aligned properly (refer to the drive manufacturer's documentation for more information).
 9. Connect the 4-pin DC power cable(s) from the DS100 to the drive(s).
 10. Connect the ID select cable to the ID select connector on the rear panel of the DS100 (Figures 7 & 8).
- NOTE:** Use the provided tie wraps included in your installation kit to prevent the power and ID select cables from possible fan contact.
11. Reinstall the DS100 cover and fasten all screws.
 12. Connect the power cable to the DS100 and turn ON the power switch. Should there be any unusual sound, turn the DS100 OFF immediately, disconnect the power cable, and remove the cover to locate the source of the problem. Verify that the power and ID select cables are securely fastened with the provided tie wraps and are not contacting the fan. Replace the cover.

Connecting the DS100 to the Computer System

If the DS100 is the last device in a SCSI daisy chain, it will require the appropriate termination (Figures 15 & 16).

The DS100 provides two (2) external rear panel SCSI I/O connectors designed for a single-host (single-port) connection. The DS100 4-bay is optionally available with four (4) rear panel SCSI I/O connectors designed for dual host (dual-port) connection.

The four connector (dual port) version permits two (2) separate host/daisy-chain connections. This configuration permits some drives within the DS100 chassis to connect to one host/daisy-chain, and the remainder of the devices can be connected to a second host/daisy-chain (Figure 16).

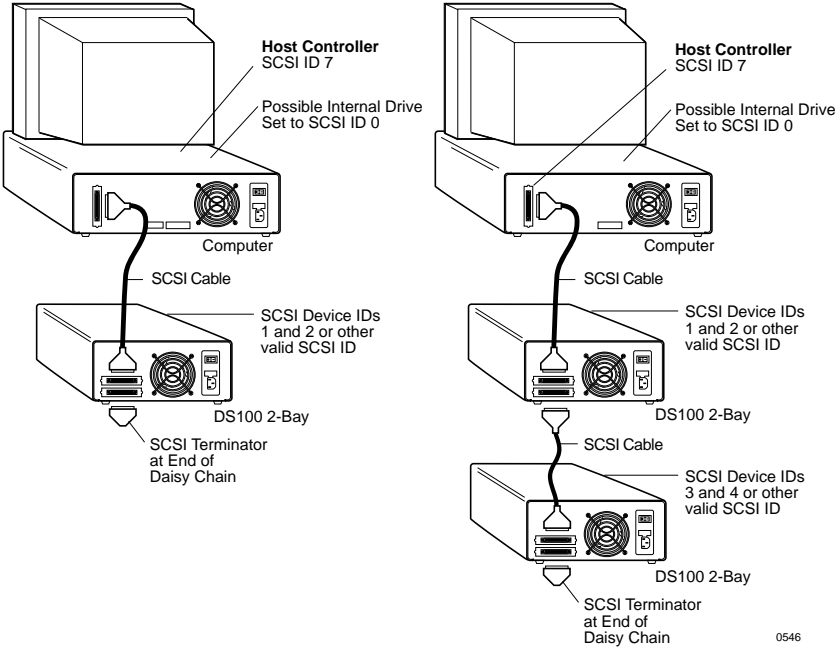


Figure 15: Typical Daisy-Chain Connections

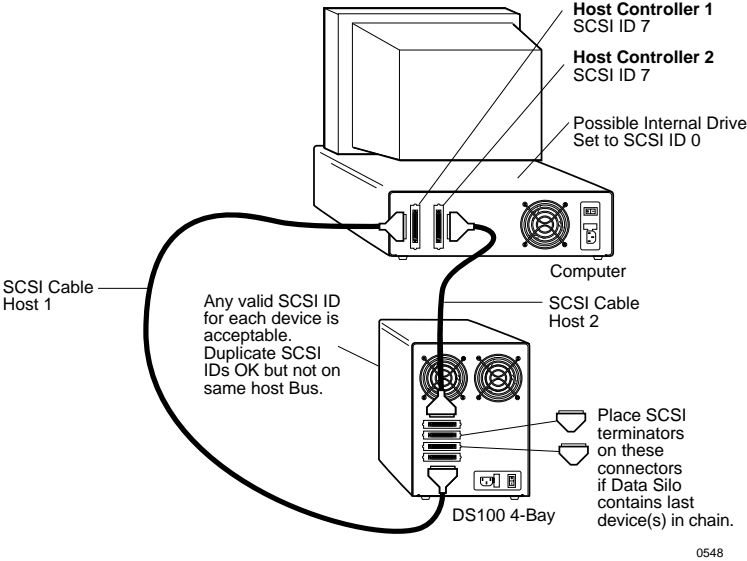


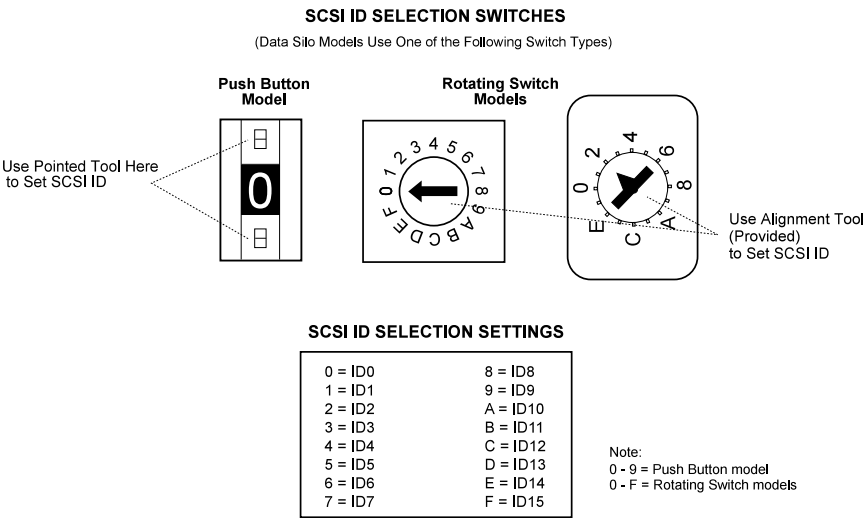
Figure 16: Dual Host Daisy-Chain Connection

Selecting the SCSI ID Number

The SCSI ID is an address number (0-7 for 8-bit protocol and 0-15 for 16-bit protocol) that is assigned to each SCSI device. Each device in the chain must have a unique SCSI ID number. SCSI ID 7 is usually reserved for the host controller. If the computer system is already equipped with internal or external SCSI storage devices, some ID numbers will already be reserved. For instance, if the computer system came with an internal SCSI hard drive, it may be designated as SCSI device 0 (refer to the computer system documentation for additional information).

The Data Silo SCSI ID selection switch(es) is located on the rear panel of the chassis enclosure (Figure 17). There are two (2) SCSI selection switches. Both rotating switches can be adjusted with the provided alignment tool (older models may have pushbutton switches which can be adjusted with the tip of a pen or straightened paper clip).

Carefully select the appropriate SCSI ID number(s) for the installed device(s). Note that some switch settings may be invalid for your interface type. Selecting an invalid ID number, or selecting the same number on different devices may cause unpredictable results and the computer system may not recognize the installed device(s). If the computer system can not recognize the boot disk, the computer system may fail to properly start-up.



Some SCSI unit ID numbers on the selection switches may be invalid for your interface type. Valid 8-bit ID numbers include 0-7. Valid 16-bit ID numbers include 0-15 (Do not use ID7. It is usually reserved for the host).

0636

Figure 17: SCSI ID Selection Switches

APPENDICES

Appendix A - Specifications/Dimensions

The following Data Silo DS100 specifications and dimensions are provided for reference only.

Environmental Specifications		
	Operating	Storage
Ambient Temperature	-5° C to 50° C	-45° C to 75° C
Relative Humidity ⁽¹⁾	10% to 80%	10% to 90%
Altitude	-1000 to 50,000 ft -304m to 15240m	-1000 to 50,000 ft -304m to 15240m
Shock ⁽²⁾	10g	60g

⁽¹⁾Non-condensing with maximum gradient of 10% per hour.

⁽²⁾11 msec pulse width 1/2 sine wave.

Physical Specifications	DS100 1-Bay	DS100 2-Bay	DS100 4-Bay
Height	2.70" (68.6mm)	4.28" (108.7mm)	10.27" (260.8mm)
Width	9.50" (241.3mm)	9.50" (241.3mm)	7.54" (191.5mm)
Depth	11.35" (288.3mm)	11.35" (288.3mm)	11.35" (288.3mm)
Drive Mounting Depth	9.75" (247.7mm)	9.75" (247.7mm)	9.75" (247.7mm)
Actual Weight	6.4lb. (2.91kg)	8.2lb (3.73kg)	18.6lb (8.45kg)

Chassis Reliability/Maintainability	
MTBF	500,000 Hours
MTTR	5 Minutes
Preventive Maintenance	None

DS100 Fan Air Flow (Maximum)		
1-Bay	2-Bay	4-Bay
17 CFM (60mm, 1ea.)	36 CFM (80mm, 1ea.)	72 CFM (80mm, 2ea.)

Electrical	DS100 1-Bay	DS100 2-Bay	DS100 4-Bay
Input	90-260 VAC, Auto Select, 47-60Hz	90-260 VAC, Auto Select, 47-60Hz	90-260 VAC, Auto Select, 47-60Hz
DC Output (Continuous)	40 watts	65 watts	130 watts
DC Output (Peak)	60 watts	135 watts	270 watts

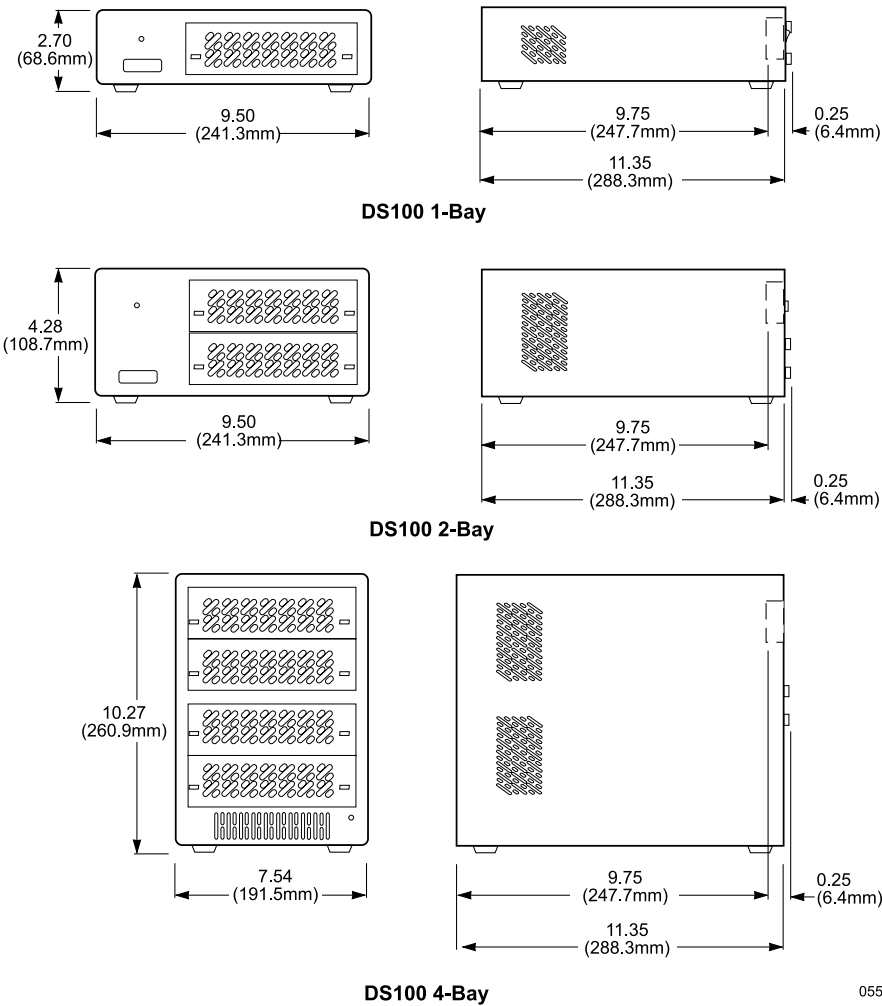
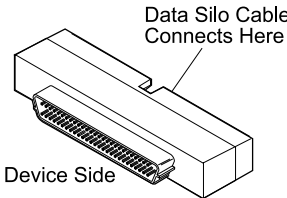


Figure A-1: DS100 Physical Dimensions
(Dimensions are for reference only)

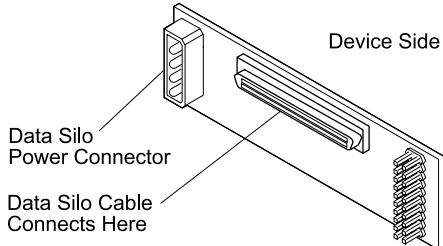
Appendix B - Drive Interface Adapters

StorCase provides several drive interface adapter options that permit various Data Silo/drive connector combinations. Contact StorCase for additional ordering information.



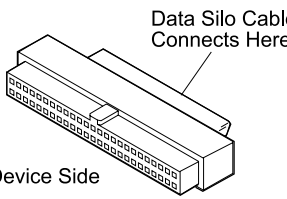
DX100-WTN

Adapts 16-bit, 68-pin SCSI Wide device to 8-bit, 50-pin SCSI Narrow cable connector



DX100-SWC

Adapts 16-bit, 68-pin SCSI Wide cable connector to Single Connect (SCA-2) drive interface connector (includes power, ID selection and device activity connections). Also supports Ultra2 and Ultra160 (LVD) interfaces.



DX100-NTW

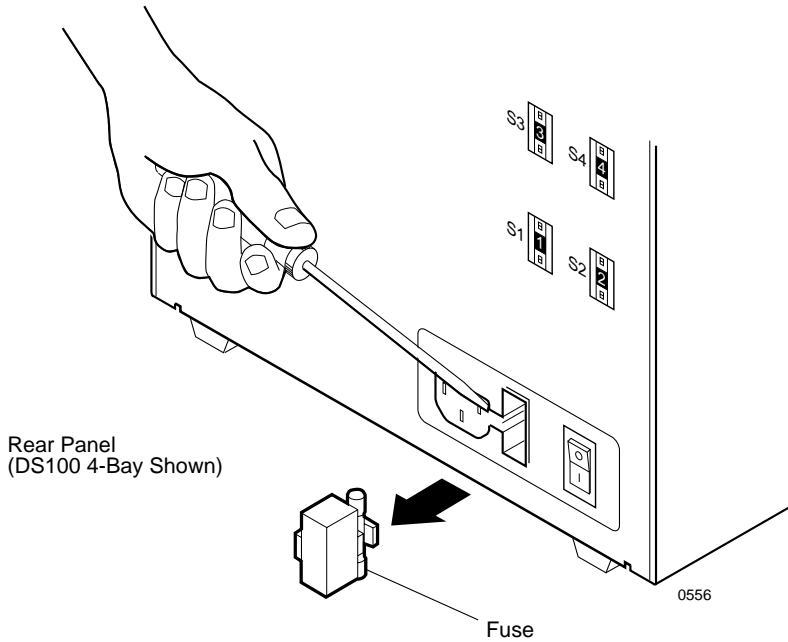
Adapts 8-bit, 50-pin SCSI Narrow device to 16-bit, 68-pin SCSI Wide cable connector

0552u

Figure B-1: Drive Interface Adapters

Appendix C - Fuse Removal

WARNING: Remove ALL power from the Data Silo before removing fuse!



CAUTION: For continued protection against risk of fire, replace **ONLY** with SAME TYPE and RATING of fuse!

Figure C-1: Removing the Fuse

Reader's Comments

Please take a few moments when your computer system is up and running to send us your ideas and suggestions for improving our products and documentation. Did the installation go smoothly for you? Are there any changes you would like us to make, either with the hardware itself, or with the installation instructions? Everyone at StorCase Technology is working toward the goal of providing you with the highest quality, most cost effective, products available on the market, and we need your comments to guide our efforts. We look forward to hearing from you soon!

Date: _____

Your Name: _____

Address: _____

Telephone: () _____

To mail this page, carefully remove it from the manual, fold it, staple or tape it shut, and drop it in the mail. To FAX this page, carefully remove it from the manual (or make a photocopy) and FAX it to us at (714) 438-1847. Thank you for taking the time to help us make our products better!

FOLD ALONG THIS LINE AND STAPLE SHUT



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS MAIL PERMIT NO. 10686 SANTA ANA, CA

POSTAGE WILL BE PAID BY ADDRESSEE



A Kingston Technology Company

17600 NEWHOPE STREET
FOUNTAIN VALLEY CA 92708-9885

